

ABSTRACT OF THE DISCLOSURE

A design support system is provided, which accurately simulates the behavior of a flexible medium in a convey path even if the flexible medium exhibits different flexural stiffness in different bending directions. In a design support system which supports the user to design a convey path by simulating the behavior of a flexible medium conveyed in the convey path, a flexible medium model creation module (102), when a flexible medium to be conveyed is defined in the convey path defined by using a convey path definition module (101), creates a flexible medium model representing the flexible medium by segmenting the flexible medium into a plurality of stiff body elements each having a mass, and connecting the respective adjacent stiff body elements with two springs, that is, a rotational spring and translational spring whose spring constants change depending on the direction of flexural deformation of the flexible medium. A motion calculation module (104) time-serially calculates the behavioral state of the flexible medium in the convey path by numerical simulation on the basis of the flexible medium model created by a flexible medium model creation module (102) and the convey conditions and frictional coefficients set by a convey condition setting module (103).